spatz

MAXTRIX-X88

8 x 8 HDMI Matrix

Operation Manual

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SAFETY PRECAUTIONS

Please read all instructions before attempting to unpack, install or operate this equipment and before connecting the power supply.

Please keep the following in mind as you unpack and install this equipment:

- Always follow basic safety precautions to reduce the risk of fire, electrical shock and injury to persons.
- To prevent fire or shock hazard, do not expose the unit to rain, moisture or install this product near water.
- Never spill liquid of any kind on or into this product.
- Never push an object of any kind into this product through any openings or empty slots in the unit, as you may damage parts inside the unit.
- Do not attach the power supply cabling to building surfaces.
- Use only the supplied power supply unit (PSU). Do not use the PSU if it is damaged.
- Do not allow anything to rest on the power cabling or allow any weight to be placed upon it or any person walk on it.
- To protect the unit from overheating, do not block any vents or openings in the unit housing that provide ventilation and allow for sufficient space for air to circulate around the unit.

REVISION HISTORY

VERSION NO.	DATE DD/MM/YY	SUMMARY OF CHANGE
RDV1	11/11/2011	PreliMINary Release
RDV2	13/12/2011	Power Supply Change
RDV3	15/02/2012	LAN's Function

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1. INTRODUCTION

The 8 x 8 HDMI Matrix is a fabulous device for organizing and distributing your HDMI signals. With 8 HDMI input ports and 8 HDMI output ports this device allows a great amount of sources and display to be used motivationally. Moreover, with plenty of control systems such as IR, RS-232 and remote control allow user for all kinds of control habit and occasion to be used. Further, the EDID control settings unlocked the information display freely present.

2. APPLICATIONS

- Video/TV wall display
- Commercial advertising and displaying
- Lecture room display and control
- Hyper market demonstration and control

3. PACKAGE CONTENTS

- 8 x8 HDMI Matrix
- 24V/6.25A DC adaptor x 1
- Remote control x 1
- IR receiver cable x 1
- Operation manual

4. SYSTEM REQUIREMENTS

Input source equipments with HDMI connection cables and output display or audio amplifier equipments with HDMI connection cables.

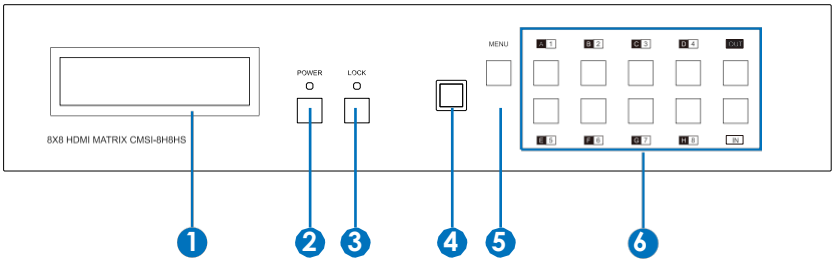
5. FEATURES

- HDMI, HDCP1.1 and DVI compliant
- Supports HDMI v1.4 features:

  √ 3D
- Supports audio sampling rate up to 192kHz
- Supports resolutions to VGA ~ WUXGA and 480i~1080p follow by output display's EDID
- Supports 3D signal display follow by display TV's EDID
- Supports HDMI input up to 15 meters with 8bits resolution or 10 meters with 12bits resolution and output up to 15 meters with 8/12bits
- Supports IR extension
- Supports RS-232, remote control and on panel control
- 2U size design

6. OPERATION CONTROLS AND FUNCTIONS

6.1 Front Panel



1 LCD

This monitor displays your setting information with each input and output selection.

2 POWER button & LED

Press this button to turn on the device and the green LED will illuminate when the power is on. When the LED illuminate in red it is in standby mode

3 LOCK button & LED

Press this button to lock all the buttons on the panel. To unlock, just press it again.

4 IR

This IR window accepts the remote control signal of this device only.

5 MENU

Press this button once to select EDID setting from STD (internal) 1 or TV (external) 2 then press it again to confirm the selection. Press this button every to confirm the selection.

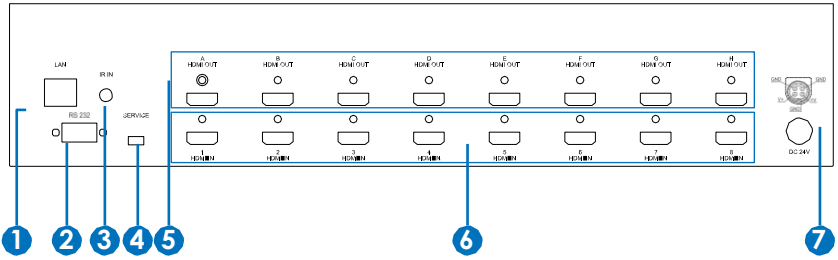
EDID TV: The device will read the EDID of HDMI output A and record it.EDID STD: The device's built-in EDID is 1080p@60/12bits forvideo and LPCM 2CH for Audio.

6 1 ~8 /A ~ H & Out/In buttons

Press Out/In button first to select the output/input then press the number button to make the selection accordingly. For

example, output A ~ D wish to select input 1 and E ~ H wish to select input 2. Press Out →A→B→C→D→In→1→Menu, and then press Out →E→F→G→H→In→2→Menu. If the menu button is not press the selection will not be changed.

6.2 Rear Panel



1 LAN

Reserved.

2 RS-232

This slot is to connect with D-Sub 9pin cable from the PC/NB device for RS-232 control.

3 IR-IN

This slot is to connect with the IR extender included in the package for IR signal receiving from the remote control of this device.

4 SERVICE

This slot is to connect with USB cable for manufacturers' firmware update only.

5 HDMI OUT A~H

These slots are to connect with display or monitor with HDMI cables for output image display.

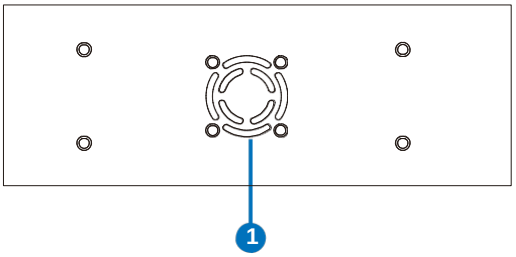
6 HDMI IN 1~8

These slots are to connect with input source equipment such as Blu-ray player or Set-Up-Box with HDMI cable or DVI to HDMI converter cable for input signal sending.

7 DC24V

This slot is to plug the power cord with adaptor included in the package and then connect them with AC wall outlet for power supply.

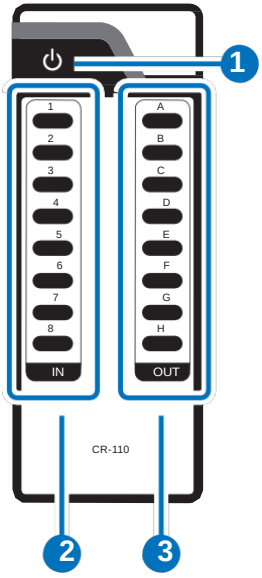
6.3 Side Panel



1 VENTILATOR

This is the fan ventilation area, DO NOT block this area or cover it with any object.

6.4 Remote Control



1 Power

Press this button to switch on the device or set it to standby mode.

2 IN

Input ports selection 1~8.

3 OUT

Output ports selection A~H.

6.5 RS-232 Protocols

CMSI-8H8HS			Remote Control Console	
PIN	Assignment		PIN	Assignment
1	NC		1	NC
2	Tx		2	Rx
3	Rx		3	Tx
4	NC	▶	4	NC
5	GND	◀	5	GND
6	NC		6	NC
7	NC		7	NC
8	NC		8	NC
9	NC		9	NC

Baud Rate: 19200bps

Data bit: 8 bits

Parity: None

Flow Control: None

Stop Bit: 1

Command	Description
A1~A8	Switch Output A to 1~8
B1~B8	Switch Output B to 1~8
C1~C8	Switch Output C to 1~8
D1~D8	Switch Output D to 1~8
E1~E8	Switch Output E to 1~8
F1~F8	Switch Output F to 1~8
G1~G8	Switch Output G to 1~8
H1~H8	Switch Output H to 1~8
ABCE…1~ABCD…8	Switch Output ABCD… to 1~8 at the same time
SETIP <IP><SubNet><GW>	Setting IP. SubNet.GateWay<Static IP>
RSTIP	IP configuration was reset to factory defaults<DHCP>
IPCONFIG	Display the current IP config
P0	Power Off
P1	Power On
I1~I8	Switch all the output to 1~8
ST	Display the current matrix state and firmware version
RS	System Reset to H8
EM	Setting EDID MODE. 1-STD 2-TV.
?	Display all available commands
QUIT	Exit (Telnet only)

Note: Any commands will not be executed unless followed by a carriage return. Commands are not case-sensitive.

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6.7 Telnet Control

Before attempting to use the telnet control, please ensure that both the Matrix (via the 'LAN /CONTROL' port) and the PC/Laptop are connected to active networks.

Note: Please do not connect both the Matrix and the PC/Laptop with a single CAT5e/6 cable as it will not access the telnet function.

To access the telnet control in Windows 7, click on the 'Start' menu and type "cmd" in the Search field then press enter.

Under Windows XP go to the 'Start' menu and click on "Run", type "cmd" with then press enter.

Under Mac OS X, go to Go→Applications→Utilities→Terminal

See below for reference.

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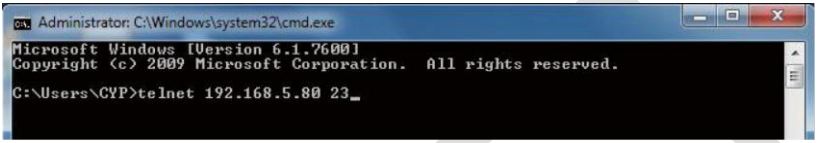
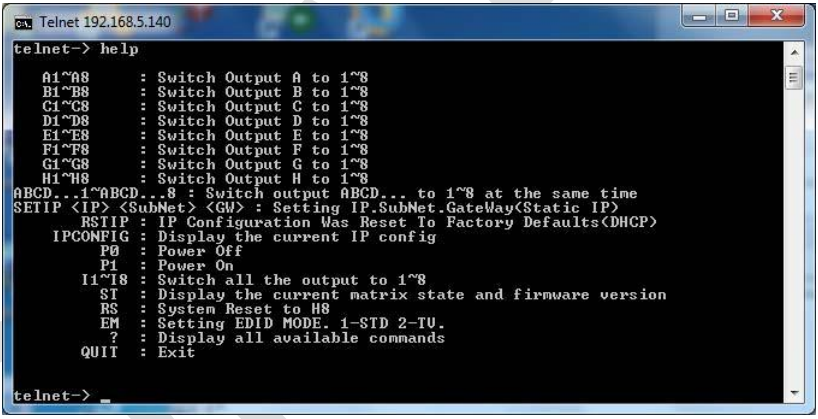
Once in the command line interface (CLI) type "telnet", a space, then the IP address of the unit you wish to control, a space and "23", then hit enter.

Note: The IP address of the Matrix can be displayed on the device's LCM monitor by pressing the Menu button twice.


Administrator: C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.
C:\Users\CYP>telnet 192.168.5.80 23_

This will bring us into the device which we wish to control. Type "HELP" to list the available commands.


Telnet 192.168.5.140
telnet-> help
A1~A8 : Switch Output A to 1~8
B1~B8 : Switch Output B to 1~8
C1~C8 : Switch Output C to 1~8
D1~D8 : Switch Output D to 1~8
E1~E8 : Switch Output E to 1~8
F1~F8 : Switch Output F to 1~8
G1~G8 : Switch Output G to 1~8
H1~H8 : Switch Output H to 1~8
ABCD...1~ABCD...8 : Switch output ABCD... to 1~8 at the same time
SETIP <IP> <SubNet> <GW> : Setting IP.SubNet.GateWay<Static IP>
RSTIP : IP Configuration Was Reset To Factory Defaults<DHCP>
IPCONFIG : Display the current IP config
P0 : Power Off
P1 : Power On
I1~I8 : Switch all the output to 1~8
ST : Display the current matrix state and firmware version
RS : System Reset to H8
EM : Setting EDID MODE. 1-STD 2-TU.
? : Display all available commands
QUIT : Exit
telnet-> _

Type “IPCONFIG” To show all IP configurations. To reset the IP, type “RSTIP” and to use a set static IP, type "SETIP" (For a full list of commands, see Section 6.7).

Note: Any commands will not be executed unless followed by a carriage return. Commands are not case-sensitive. If the IP is changed then the IP Address required for Telnet access will also change accordingly.

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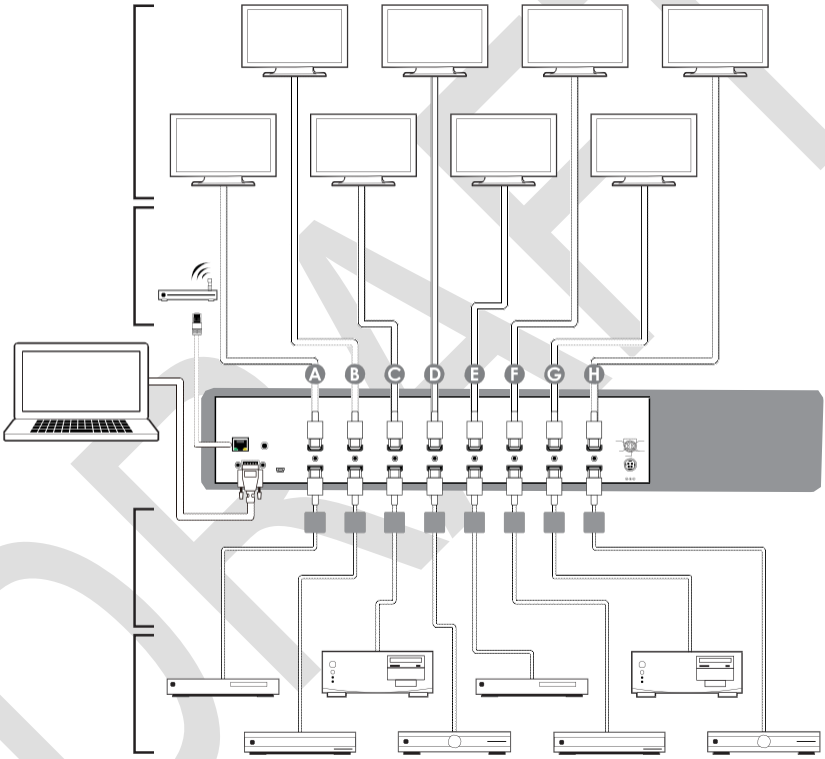

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8. SPECIFICATIONS

Video Bandwidth	255 MHZ/6.75 GBPS
Input Ports	8×HDMI, 1×RS-232, 1×IR Receiver, 1×Mini USB Type B (For firmware update only), 1×RJ-45
Output Ports	8×HDMI
HDMI Input Cable Distance	15m/8-bit, 10m/12-bit
HDMI Output Cable Distance	15m/8-bit ,15m/12-bit
ESD Protection	Human-body Model: ± 8kV (Air-gap discharge) ± 4kV (Contact discharge)
Power Supply	24 V/6.25 A DC (US/EU standards, CE/FCC/UL certified)
Dimensions	438 mm (W)×255 mm (D)×93 mm (H)
Weight	4278 g
Chassis Material	Metal
Silkscreen Color	Black
Operating Temperature	0 ˚C~40 ˚C/32 ˚F~104 ˚F
Storage Temperature	−20 ˚C~60 ˚C/−4 ˚F~140 ˚F
Relative Humidity	20~90% RH (non-condensing)
Power Consumption	48 W